

549,350

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 September 2004 (30.09.2004)

PCT

(10) International Publication Number
WO 2004/084406 A1

(51) International Patent Classification⁷: **H03H 7/01**

(74) Agent: **VOLMER, Georg**; Philips Intellectual Property & Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE).

(21) International Application Number:
PCT/IB2004/050237

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 11 March 2004 (11.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03100697.6 19 March 2003 (19.03.2003) EP

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for DE only*): **PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH** [DE/DE]; Stein-damm 94, 20099 Hamburg (DE).

(71) Applicant (*for all designated States except DE, US*): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

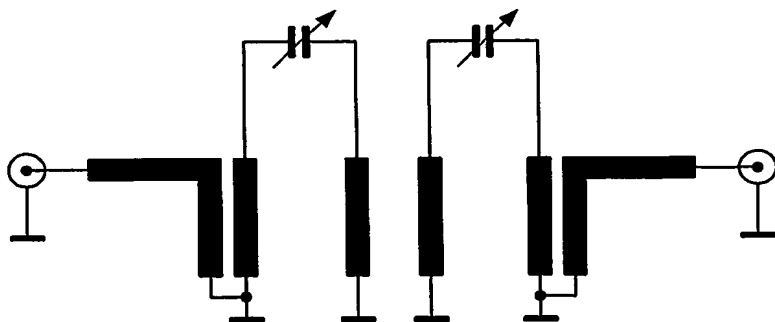
(75) Inventor/Applicant (*for US only*): **TSILIOUKAS, Efthimios** [GR/DE]; c/o Philips Intellectual Property & Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **MICROSTRIP FILTER OF SHORT LENGTH**



(57) Abstract: A description is given of a high frequency filter comprising microstrips. The filter comprises at least two resonators (16, 18) which each have, as frequency-determining elements, a first straight microstrip section (28) and a second straight microstrip section (30), which are parallel next to each other, and also a capacitor assembly (22). In each resonator the capacitor assembly is connected between first ends of the microstrip sections and each resonator is exclusively connected to ground at the second ends of the

microstrip sections. In each resonator (16, 18) the sum of the two microstrip sections acts as inductive element. The resonators (16, 18) therefore act in the same manner as a resonator having a single microstrip, the length of which corresponds essentially to the sum of the lengths of the first microstrip section (28) and the second microstrip section (30). This construction of a filter allows a shorter design compared to conventional filter structures.

WO 2004/084406 A1